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EARTH-BURIAL AND CREMATION.

TIME and experience test the works of man, and the highway of progress is covered with the fragments of countless inventions. The creeds, the dogmas, the social regulations of one age, become the by-words or the antique curiosities of the next. Men do what they can, and coming generations pardon their errors, but judge their works as they ought.

What is good, lives; what is bad dies—this is the general rule. When, therefore, a custom like that of burial has existed for many centuries, a strong presumption arises in its favor. Its antiquity is offered as a voucher for its wisdom, and the rule that we have stated is rigidly applied. Let us not forget, however, that, to respect a custom for its antiquity, no unnatural causes must have tended to prolong its life. Resting solely upon its intrinsic merits, it should challenge and survive the scrutiny of unbiased minds. Judged by this standard, the antiquity of burial avails it nothing, while our respect for the custom itself will lessen in proportion as we learn how it was established. For centuries, by the civilized nations of Greece and Rome, burning on the pyre was the usage regarded as most honorable and appropriate. At first, it is not probable that the funeral customs of the Christians differed in any marked respect from the customs of those who clung to the ancient faith. They interred in the same places, and they even painted and engraved upon their catacombs representations of the heathen gods and goddesses.

The contrast in time became greater, and no sooner had the Christian religion become a power in the state, than its followers, always inimical to cremation, made haste to abolish the practice. They were influenced in this, not by the Scriptures, for both Old and New Testaments are silent on the subject. The causes are found in a prejudice and a superstition. Cordially hating the old mythology, it was easy for them to dislike its followers

and their customs. The pagans of Europe burned their dead; and therefore the Christians stigmatized burning as a pagan custom. Being prejudiced, they refused to adopt a good habit that their enemies possessed; being illogical, they totally disregarded the fact that, while some heathen nations had used the torch, others had plied the spade, and therefore cremation, any more than inhumation, should not be taken as a symbol of paganism.

Another reason contributing to the revival of burial, was the belief in the body's resurrection. That the trumpet would sound and the dead come forth was a doctrine literally accepted in a physical as well as in a spiritual sense. Again, a notion was prevalent that the Christian's body was in some peculiar sense redeemed and purified. It was "a temple of the Holy Ghost." Though language like this may baffle our comprehension, yet the phrase sounded well, and had due effect. The old precept of one of the Twelve Tables, "*Hominem mortuum in urbe ne sepelito, neve urito*," was set at naught. Inanimate "temples of the Holy Ghost" by the score were encased in the niches and corners of churches, and many a moldering monk unintentionally counterbalanced the good deeds of his life by the disease that he generated after his death. The superstitious reverence in which the tombs, bodies, and even bones of the saints were held, enhanced likewise the love of the faithful for burial. The pious Mussulman turns not to the tomb of the Prophet at Mecca with greater reverence than did the early Christian to the grave of saint or martyr. "In the age," says Gibbon, "which followed the conversion of Constantine, the emperors, the consuls, and the generals of armies devoutly visited the sepulchers of a tent-maker and a fisherman."

This was an age of miracles, and the skeletons of saints were more valuable to the clergy than gold or precious stones. "There is reason," adds the historian, "to suspect that Tours might not be the only diocese in which the bones of a malefactor were adored, instead of those of a saint." By a heavenly vision, the resting-place of the Martyr Stephen was revealed to Lucian, a presbyter of Jerusalem. In the presence of an innumerable multitude the ground was opened by the bishop, and when the coffin was brought to light, the earth trembled, and an odor as of Paradise arose, which instantly cured the various diseases of seventy-three in the vicinity. In solemn procession the remains of Stephen were transported

to a church constructed in their honor on Mount Sion; "and the minute particles of those relics—a drop of blood, or the scrapings of a bone—were acknowledged in almost every province of the Roman world to possess a divine and miraculous virtue." The grave and learned Augustine, the most profound theologian of his day, in attesting to the innumerable prodigies which were performed by the relics of St. Stephen, enumerates above seventy miracles, of which three were resurrections from the dead, in the space of two years. These incidents of unquestioning and child-like faith, viewed perchance with pious rapture by those who bewail the skeptical spirit of our day, illustrate the intellectual capacity of the age, and help largely to explain the preference of the early Christians for burial. The phantoms of the grave revealed the constitution of the invisible world, and convinced them that their religion was founded on the firm basis of fact and experience; while the fragments of moldering saints, gathered with reverent care, shielded them from accident, cured their diseases, and restored their dead to life.

Well might the faithful adore the tomb when it yielded such priceless treasures. With a superficial knowledge of the history of the Christian Church, one can readily understand how the practice of inhumation would be insured a long life on receiving the stamp of priestly approval. Even at this early date the temporal power of the Church existed in fact as well as in name; and public opinion was largely influenced by the views of the clergy,—a body extremely jealous of their privileges and ready to brand with the name of heresy any undertaking or teaching believed to be in the most remote degree capable of affecting their dogmas or emoluments. As early as 385 A. D., at the time when the bones of St. Stephen first began their wonderful work, Priscillian was condemned to death as a heretic at the Council of Treves. For fourteen hundred years afterward the fagot, scaffold, ax and rack were in constant use, and hundreds of thousands of human victims were demanded for the maintenance of Christian doctrines.

When the noble Bruno was burned at Rome, the special charge against him was that he had taught the plurality of worlds, a doctrine repugnant to the whole tenor of Scriptures. When John Calvin caused Servetus to be roasted to death over a slow fire at Geneva, the offense of the philosopher lay in his belief that the genuine doctrines of Christianity had been

lost even before the time of the Council of Nicæa. "Heresy" was a word whose elastic meaning embraced every offense, real or imaginary, against the doctrines and regulations of the church; and the assertion of the Bishop of Lincoln, in 1874, that a revival of cremation would destroy belief in a final resurrection, if proclaimed from one to fourteen centuries since, would have received universal assent.

To many it may appear that we have wandered unnecessarily into details of church history, but the cause is found in the oft-repeated statement of the anti-cremationists, that burial is a Christian custom that has endured for centuries. Burial is a Christian custom, and it has endured for centuries; but when we consider the prejudice that gave rise to it in Europe, the superstition that nourished, and the intolerance that ever stood ready to defend—when we consider these facts in connection with the well-authenticated cases of plague and epidemics that the custom has occasioned—one would think that all branches of Christians would gladly welcome any innovation that would consign the practice to a well-deserved oblivion. The whole question of the disposition of the dead, as the advocates of incineration have again and again asserted, is a sanitary, and not a religious one.

On investigating the condition of grave-yards, all sentiment clustering around the tomb is quickly dispelled, and a state of things horrible in its nature and dangerous in its effects arrests our attention. These form the strongest arguments in favor of incineration, and by their force seem to indicate that those who believe in the practice of earth-burial must be ignorant of the result of the custom they advocate. Scores of instances, in cities and in rural districts, both in our own and in foreign lands, verify the assertion of Dr. Adams, of Massachusetts, that the "Christian church-yard is often a contracted plot of ground in the midst of dwellings, literally packed with bodies until it becomes impossible to dig a grave without disturbing human bones; and the earth so saturated with foul fluids and the emanations so noxious as to make each church-yard a focus of disease."

Of the one hundred and seventy-one answers received by Dr. Adams, in reply to circulars sent to the regular correspondents of the State Board of Health of Massachusetts, both in the United States and Great Britain, more than one-third (sixty-one) gave

their testimony in favor of the adoption of cremation as a substitute for burial. And this was in 1874, when the subject was first being agitated in this country.

At the outset it may be well to notice a statement generally advanced by the believers in inhumation, whenever the dangers arising from grave-yards are spoken of. They inform us that cemeteries established in country districts, for the reception of the dead of cities, where each body is laid in a grave by itself, are not open to the objection of being overcrowded or dangerous. To this we can answer that all suburban cemeteries ultimately increase their area or become overcrowded, while the cities for the use of which they are intended expand in size until in time the abodes of the living and dead converge together.

Brooklyn furnishes an illustration of the evil of which we speak, being surrounded by a net-work of cemeteries. Within Greenwood alone, since its establishment forty years ago, two hundred and eleven thousand bodies have been interred. We can realize how startling has been its growth when we remember that since its dedication it has had neighboring burial-grounds to compete with, and that when its gates were first opened Brooklyn contained only thirty thousand, and New York but three hundred thousand inhabitants. Brooklyn now has a population of over six hundred thousand; and Greenwood, once suburban, has become intra-mural. It need surprise no one to learn that the exhalations from this cemetery were recently complained of in South Brooklyn; and considering the thousands annually interred within neighboring burial-grounds and the increasing density of our population, we can readily believe that the evil, instead of diminishing, will increase. Realizing the gravity of this subject, Sir Henry Thompson, in an article in the "Contemporary Review" for January, 1874, declared that, by selecting a portion of ground distant some five or ten miles from any very populous neighborhood, and by sending our dead to be buried there, we were "laying by poison, it is certain, for our children's children, who will find our remains polluting their water-sources when that now distant plot is covered, as it will be more or less closely, by human dwellings." This feeling is shared by other distinguished English writers; and the London "Lancet" of January 11, 1879, speaking of the necessity of devising special measures for the disposal of the dead, said: "The expedient of burial in suburban cemeteries is

only temporary. It may last our time, but the next generation will be called upon to solve the sanitary problem in a more permanent way."

Grave-yards, wherever situated, are in their nature transitory. Within the memory of men now living, what numbers of burial-grounds on Manhattan Island have been built over, and their very locations obliterated. Even remote rural cemeteries, from the death of those interested in them, or from the necessity of opening new streets or constructing railways, succumb to the march of improvement. Beautiful as they sometimes seem, and harmless as the advocates of inhumation would have us believe them to be, the putrid tenants of their vaults and graves contain the germs of contagious diseases; and disinterment is always undertaken at a terrible risk. The experiments of Prof. Tyndall and others have shown "that certain organisms may be boiled for hours and may be frozen, and still survive to propagate their species." Grain entombed with Egyptian mummies for forty centuries has been planted, and sprouted into life. "By what authority, then," asks Dr. Peterson, in the "Buffalo Medical and Surgical Journal," "can we affirm that life departs from disease-germs by inhumation? How dare we preserve vast depots in the South of yellow fever *fomites*, coffers of Asiatic cholera, and every year accumulate and treasure up small-pox, scarlet fever, whooping-cough, diphtheria, and measles?"

The sanitary records of nearly every nation show the force of the doctor's questions, and illustrate the danger of which he speaks. In 1828 Professor Bianchi demonstrated how the fearful reappearance of the plague at Modena was caused by excavations in ground where, three hundred years previously, the victims of the pestilence had been buried. Mr. Cooper, in explaining the causes of some epidemics, remarks, that the opening of the plague burial-grounds at Eyam, in Derbyshire, occasioned an immediate outbreak of disease. He also describes how the malignity of the cholera, which scourged London in the year 1854, was enhanced by the excavations made for sewers in the soil where in 1665 those dying from the plague were buried. Mr. Simon had predicted this result, and warned the authorities of the danger of disturbing the spot. Mr. Eassie, in his splendid work on "The Cremation of the Dead," tells us that in 1843, when the parish church of Minchinhampton was rebuilding, the soil of the burial-ground, or what

was superfluous, was disposed of for manure, and deposited in many of the neighboring gardens. As a result the town was nearly decimated; and the "Sanitary Record" adds, "the same would have occurred, one would imagine, even if the coffin-earth had been absent."

As high scientific authority is seldom called on to discover the origin of local diseases unless it assumes a malignant or epidemic type, it is safe to believe that thousands of cases of illness and death are occasioned by the disinterment of human remains, without the true cause of the malady being suspected. When grave-yards are dug up, who is there to look into the distant past and say: This man died of small-pox, pass him by; and that one of the cholera, disturb him not? Remembering that, a few years since, the yellow fever for two successive summers ravaged the South, how strong is the presumption that the second epidemic was largely occasioned by the burial of the victims of the first. During the reign of terror that existed, men dropped like leaves, and, insecurely confined, were hurried to common and shallow graves. Sometimes in the country districts they were buried almost where they fell. And judging the future by what has been demonstrated in the past, it seems inevitable that visitations of this frightful malady will yet sweep sections of the country, caused from the disturbance of infected burial-spots, by coming generations ignorant of their contents.

Thus far we have considered only the dangers arising from exhumation—dangers that would be simply annihilated by the enlightened adoption of cremation. Independent even of disinterment, the infected corpse, while hidden in the grave can pursue its work of harm. In a letter from Dr. Joseph Akerly, embodied in a publication by Dr. F. D. Allen, 1822, the belief was expressed that Trinity church-yard was an active cause of the yellow fever in New York in 1822, aggravating the malignity of the epidemic in its vicinity. During the epidemic in New Orleans in 1853, Dr. E. H. Burton reported that in the Fourth District the mortality was four hundred and fifty-two per thousand, more than double that of any other. In this district were three large cemeteries, in which during the previous year more than three thousand bodies had been buried. In other districts the proximity of cemeteries seemed to aggravate the disease. Dr. Ranch personally observed, during the epidemic of cholera in Burlington, Iowa, in 1850, that the neighborhood of

the city cemetery was free from the disease until about twenty interments had been made there, and then deaths began to occur, and always in the direction from the cemetery in which the wind blew. During the prevalence of the plague in Paris in the beginning of the eighteenth century, the disease lingered longest in the neighborhood of the Cimetière de la Trinité, and there the greatest number fell a sacrifice. In a report presented to both Houses of the British Parliament, in 1850, Dr. Sunderland testified that he had witnessed several outbreaks of cholera in the vicinity of grave-yards, which left no doubt on his mind as to the connection between the disease and such local influences.

The investigations of the Massachusetts Board of Health showed that diphtheria and typhoid fever were disseminated not only by infectious emanations from sick-rooms, but also from the graves of persons who had died of these complaints. And Dr. F. Julius Le Moyné, after fifty years of medical practice, wrote :

“The inhumation of human bodies, dead from these infectious diseases, results in constantly loading the atmosphere, and polluting the waters, with not only the germs that arise from simple putrefaction, but also with the *specific* germs of the diseases from which death resulted.”

To this noble physician belongs the honor of first introducing cremation in this country. A life of observation had convinced him that the present custom of disposing of the dead entailed pain, misery, and death upon the living. Believing, to quote his own words, that “men are always bound to act in conformity to the degree of knowledge they possess,” he built the Washington crematory in the face of much ignorant ridicule and opposition. The future will honor the spirit that guided him, and appreciate the wisdom that his act displayed. Independent of the dangers arising from the interment or disinterment of those dying from contagious diseases, the cemetery possesses evils *sui generis*. Dysentery, low fevers, and ulcerated sore throats are the disorders shown to prevail in a marked degree among those dwelling in its vicinity. The air likewise becomes vitiated and the springs and wells in the vicinity contaminated. These statements are not chimerical, but are amply verified by proven facts. And it may be well to repeat here what was stated when considering another branch of our subject, that these slow, hidden, but ever-continuing evils attract

marked attention only when they occasion epidemics. Until then little effort is made to discover the fountain of trouble, and unaccountable cases of death are generally attributed to the mysterious wisdom of Divine Providence.

In 1740 a fatal epidemic of fever in Dublin being distinctly traced to emanations from the church-yards, intra-mural interments were prohibited. New York City, as far back as 1814, furnishes another example supporting our statements. At that time, according to Dr. F. D. Allen, who wrote in 1822, a battalion of militia was stationed on a lot on Broadway, the rear of which bounded on Potter's Field, from which arose a vile effluvium. A number of soldiers were attacked with diarrhoea and fever, and although removed at once, one died, though the others rapidly recovered. A case similar to this was told to Mr. Chadwick by an English officer, who stated that while he and his command occupied as a barrack a building overlooking a Liverpool church-yard, they always suffered from dysentery. Instances are very numerous of illness of this nature, and also of throat troubles occasioned by the inhalation of vitiated air. Mr. Eassie mentions the interesting experiment of Professor Selmi, of Mantua, who "has lately discovered, in the stratum of air which has remained during a time of calm for a certain period over a cemetery, organisms which considerably vitiate the air, and are dangerous to life. This was proved after several examinations. When the matter in question was injected under the skin of a pigeon, a typhus-like ailment was induced, and death ensued on the third day."

It is an error only too prevalent, to require an unsavory smell as an evidence that a neighborhood is unhealthy. It is no more essential than that water to be unhealthy should possess a disagreeable taste. Both of these fallacies extensively prevail; and, as regards water, we doubt if there is a rural cemetery in this country which has not a well somewhere among its graves, receiving abundant patronage if it has no offensive taste. The danger to be apprehended from this source, or from any streams in the vicinity of burial-grounds, is forcibly pointed out by the London "*Lancet*," which says :

"It is a well-ascertained fact that the surest carrier and most fruitful *nidus* of zymotic contagion is this brilliant, enticing-looking water, charged with the nitrates which result from organic decomposition.

"What, for example, was the history of the Broad street pump, which

proved so fatal during the cholera epidemic of 1854? Was its water foul, thick, and stinking? Unfortunately not. It was the purest-looking and most enticing water to be found in the neighborhood, and people came from a distance to get it. Yet there can be no doubt that it carried cholera to many who drank it. . . . We are afraid Mr. Hadden will have to confess that at present the only known method of making organic matter certainly harmless is the process of cremation."

As to Irish church-yards, Dr. Mapother, who inspected several, declared that he "generally found them placed on the highest spot near the most central part, whence, of course, all percolations descend into the wells." In 1877 a malignant epidemic broke out in a section of Elsinore, Denmark, that baffled the skill of the leading physicians in their efforts to subdue it. On the drinking-water in the affected quarter being analyzed, it was found poisoned by the corruption that had drained into the wells from an adjoining cemetery. Professor Brande has given it as his opinion that the water in all superficial springs near burial-grounds is simply filtered through accumulated decomposition.

We have thus far considered the practice of burial entirely from a sanitary stand-point, and the facts resulting from such examination demonstrate the advantages of cremation.

Unpleasant truths connected with inhumation are concealed under a mass of false sentiment; and on more than one occasion when "Unveil thy bosom, faithful tomb," has been sung at funerals, we have been in the perplexed state of mind of "Poor Joe," who, sitting on the steps of The Society for the Propagation of the Gospel in Foreign Parts, wondered what it was all about. It seems to us impossible that a more revolting manner of disposing of the body of a loved friend could be devised than by first freezing it, then encasing it in double coffins, and burying it six feet under the sod, knowing all the while that the grave will soon fill with water, and that worms and putrefaction will pursue their horrible work for years to come.

No amount of gush or sentiment is able to neutralize in the imagination the effect of these ugly facts; and without doubt the dread of death itself is largely increased by the practice of burial. "The mere cessation of existence," said John Stuart Mill, "is no evil to any one; the idea is only formidable through the illusion of imagination, which makes one conceive one's self as if one were alive and feeling one's self dead. What is odious in death is not

death itself, but the act of dying, and its lugubrious accompaniments."

The advantages of cremation, and the magnitude and result of the evils of burial, are so well shown by Mr. W. Cave Thomas in his "Social Notes," that we cannot forbear quoting at length from him in this connection. While unfolding the condition of things in Great Britain, his words vividly illustrate the abominations of burial wherever there is a dense population. He says:

"Cremation insures the purity of the atmosphere and of the springs, both of which are contaminated to a frightful and incalculable extent by the present system of interment, as we shall immediately show. Data shall be given which will put the state of things resulting from this system in its most appalling light. The registered deaths in the United Kingdom for 1874 were 699,747. Taking this as an approximate annual death registry for Great Britain, and allowing ten years for the complete resolution of the body under the present mode of interment—a period, it is believed, considerably below the mark—we have in the kingdom nearly seven millions of dead bodies lying in various stages of decomposition, and giving off noxious exhalations by means of percolation to the atmosphere, and by sending down contaminating matter to the subterranean reservoirs. Calculating for London alone, there were, in 1872, 76,634 deaths; there are, therefore, at a rough estimate, nearly a million of human bodies festering in its immediate neighborhood. Fortunately for the springs, some of the cemeteries are on clayey soils, and bodies interred in them are, to a certain extent, locked up in their clay vaults only to be a source of mischief when they are opened. Some of these graves have been described, by one who is bound to know, as 'very cess-pools of human remains,' which give forth their noxious gases whenever broken into for the purpose of some fresh interment, as many a mourner has experienced to his cost. Bodies, on the other hand, which have been buried in sandy soils, are more quickly resolved, say in some six or seven years. Interments in sandy soils, however, are more likely to endanger the health of the living, for by percolation the fluids contaminate the springs, and the foul gases are exhaled into the atmosphere. . . . It would be a good bargain if we could obtain the adoption of cremation at the price of double fees."

The gases to which Mr. Thomas alludes will rise to the surface through eight or ten feet of gravel, just as coal-gas will do, and there is practically no limit to their power of escape. Mr. Chadwick, after examining some hundreds of witnesses, was of the opinion that entombment in vaults was a more dangerous practice than interment in the earth, because of the liability of the coffins to burst.

In the light of these revelations can we wonder that the neighborhood of crowded cemeteries has been regarded as unhealthy, or that the mephitic influences of his trade entails on

the grave-digger a loss of at least one-third of the natural duration of life and working ability. Realizing what burial is, it would seem easy for a confirmed inhumationist to change his belief and agree with Dr. Anelli that burial recalls the Middle Ages, and even the times of barbarism, while cremation represents progress and civilization.

Let us pass to a more pleasant branch of our subject, and consider the remedy for the evils we have spoken of. By means of the modern and scientific method of cremation, the human body, within an hour, can be reduced to a few pounds of white and odorless ashes. There is nothing in the operation that can shock the feelings of the most sensitive, and the process, when thoroughly examined and understood, will be found its own best advocate. "I have stood," says an eye-witness, "before the threshold of the crematory with a faltering heart. . . I have trembled at the thought of using fire beside the form of one whom I had loved. But when, in obedience to his own dying request, I saw the door of the cinerator taken down, its rosy light shine forth, and his peaceful form, enrobed in white, laid there at rest amid a loveliness that was simply fascinating to the eye, and without a glimpse of flames or fire or coals or smoke, I said, and say so still, this method, beyond all methods I have seen, is the most pleasing to the senses, the most charming to the imagination, and the most grateful to the memory." Opposition to incineration springs chiefly from ignorance of the manner in which it is carried on; and to remove all misapprehension it cannot be too distinctly stated, that the body *never* rests in flames, while during the entire process there is no fire or smoke, or odor or noise, to grieve in any manner the bereaved. Even the trestle on which the dead glides into the retort does not become heated prior to the body becoming incandescent. The active and consuming agent is simply air, raised to a white heat—a temperature equivalent to two thousand degrees Fahr.; and this, cooled temporarily by the in-rushing current on the opening of the door of the retort, causes the interior to assume beautiful vibrating and ruddy tints. One who has lately witnessed it has said: "As we turned away from the incinerator where we had left the body of our friend, it was pleasant to think of him still resting in its rosy light, surrounded and enveloped by what seemed to us as floods of purity." When all is over, nothing remains but a few fragments of calcined bones and

delicate white ashes, perfectly pure and odorless. In all candor, is not this a more fitting destiny for the cast-off body than that it should remain for years "a mass of loathsome and death-bearing putrefaction?"

Of the different methods of cremation now in use, the most rapid and complete results are obtained by means of the Siemens furnace. Its principle is that of regenerative heat, and its essential parts are comprised in the generator, or gas-producer, where the fuel is burned; the regenerators, consisting of four fire-brick-celled regenerative chambers for gas and air, and the consuming chamber, in which the body is placed. The fire burning in the generator is only an indirect agent in the work of incineration, and this portion of the furnace may be situated at some distance from the section where the body is consumed. The generator is a species of fire-brick oven, with an inclined plane, on which the coal is heated, and this, burning with a limited access of air, produces a combustible gas, which escapes into the gas regenerator, the air at the same time entering the air regenerator. These regenerative chambers work in pairs; they are of cubical shape, with walls of stone, and the interiors filled with a network of horizontal and vertical bars. By contact with the combustible gases the chambers become intensely heated, and both gas and air attain a temperature equal to white heat before rushing into the consuming chamber, where the body is laid. Entering separately and at different points, the gas and air then meet and mingle, and add to the respective heat of each that due to the mutual chemical action. The result is a terrible temperature, equaling 2000° Fahr. While one pair of generators convey the gas and air into the consuming chamber, another pair are employed in carrying them away to the chimney, and in the passage thither the current of devouring heat, purposely delayed in the labyrinth of lattice-fashioned bars, utterly consumes all noxious vapors given off at first from the body. The consuming chamber is iron-cased, and lined with metal capable of resisting the highest temperature. Its interior, smooth, almost polished, and white with heat, presents a pure and dazzling aspect; and, as the body is the only solid matter introduced, the product is simply the ashes of that body. During the entire process of incineration the remains are hidden from view; although, in special instances, where arrangements

for watching the operation have been made, no smoke or unsightly transformations of the body were observed. The heated hydrocarbon in a gaseous form, and the heated air, soon change it to a translucent white, and from this it crumbles into ashes. By means of one of these furnaces, Sir Henry Thompson reduced a body weighing no less than two hundred and twenty-seven pounds, to five pounds of ashes within the space of fifty-five minutes, and at a cost of less than a dollar for fuel.

"After such brilliant results," says Mr. Eassie—"results at once expeditious, cleanly, and economical—well might Sir Henry Thompson challenge Mr. Holland (Medical Inspector of Burials for England and Wales) 'to produce so fair a result from all the costly and carefully managed cemeteries in the kingdom,' and safely might he even offer him twenty years in order to elaborate the process."

In despite of what has been mentioned, should cremation to any one still present distressing features, let him remember that neither science, philosophy, nor religion can devise a method by which an eternal parting from the form of one we have loved can be anything but distressing. Let him remember that, although the thought of cremation may arouse unpleasant sensations, yet the entire process is complete within an hour, while, by burying, the revolting features of decomposition continue for years and possibly for centuries. In the words of the great scientist whose experiment we have related, "each mode of burial, whether in soil, in wood, in stone, or metal, is but another contrivance to delay, but never to prevent the inevitable change. When the body is burned, and so restored at once to its original elements, nature's work is hastened, her design anticipated, that is all." "For more than twenty years," says Dr. Parker, "I have believed that the true way of disposing of the human dead is by rapid burning,—I say rapid, for chemistry teaches us that decomposition of the body, when interred, is but a slow process of combustion."

When regarded from an artistic stand-point we see our attractive cemeteries, notwithstanding their picturesque effect, presenting strange inconsistencies; while our climate prevents a display of the finest and most delicate art, and in fact renders them for almost six months of the year unsuitable for being visited. The magnificent and ponderous mausoleum, within which the Roman or the Greek would have deposited, secure

from molestation, the cinerary urns of his ancestors, is planted by us directly above some lamented progenitor, as if to deprive him of the privilege of the resurrection. On every hand marble urns destitute of ashes crown lofty columns, and inverted torches, typical of cremation, meet the eye. These are the borrowed tokens of a classic age, that in our modern cemeteries lose their ancient meaning and serve no obvious purpose. A more serious charge that can be brought against cemeteries is the enormous sums of money annually sunk in them, sums entirely disproportionate to the services they yield. In an address before the Chicago Medical Society, in advocacy of cremation, Dr. Charles W. Purdy made some striking comparisons to show what a burden is laid upon society by the burial of the dead. According to his carefully prepared estimate, "one and one-fourth times more money is expended annually in funerals in the United States than the Government expends for public school purposes. Funerals cost this country in 1880 enough money to pay the liabilities of all the commercial failures in the United States during the same year, and give each bankrupt a capital of eight thousand six hundred and thirty dollars with which to resume business. Funerals cost annually more money than the value of the combined gold and silver yield of the United States in the year 1880." These figures, fabulous as they appear, do not include the enormous sums invested in burial-grounds and expended in tombs and monuments, nor the loss from depreciation of property in the vicinity of cemeteries.

As a return for this unparalleled and ridiculous extravagance, we have the funeral, the most doleful and melancholy thing on earth, and the ordinary grave-yard, transitory and repulsive in its nature and deadly in effect. When in addition to these facts we remember that, notwithstanding the vast sums expended, each semblance of poor humanity has been screwed up in a box for a decay as odious as it is needless, we find it easy to agree with the author of "God's Acre Beautiful," who declared the burial system in vogue to be "the most impudent of the ghouls that haunt the path of progress."

The money lavished by the citizens of New York during the past twenty years on funerals and cemeteries would have supplied a temple for the ashes of the dead in every way worthy of the metropolis. Added to and embellished by coming generations, its halls of statuary would foster art and rob death

of half his terror. There, cinerary urns of every design and every degree of elegance could be placed safe from all desecration. Money expended upon them would be better employed than by being devoted to coffins, which, within a few hours, are buried forever from sight; while, from a sentimental point of view, it would appear less incongruous to dress with roses a beautiful bronze or silver vase containing the ashes of a friend, than to tie a wreath of immortelles to the door-knob of a gloomy vault. Nearly fourteen years have elapsed since Professors Coletti and Castiglioni, "in the name of public health and of civilization," introduced in the Medical International Congress at Florence the question of cremation. A resolution at this congress was passed, urging that every possible means be employed to promote its substitution for burial; and, three years later, the Royal Institute of Science and Letters of Lombardy offered a prize for the best practical method. Since this revival of interest in the subject, cremation societies have been organized in nearly all of the large cities of Europe—in Italy alone eighteen having been established. The crematory at Milan, after being in existence a little over a year, had burned more than one hundred and fifty bodies; and that at Gotha, built by an association of some of the most learned and thoughtful men in Germany, fifty-two bodies. Of the forty-seven men whose bodies were cremated at Gotha, nineteen belonged to learned professions, four to the army, and four to the nobility. There were ten physicians. At the last meeting of the Copenhagen Cremation Society, it was announced that it contained one thousand four hundred members, among whom were eighty-three physicians. The French Society at Paris numbers over four hundred members.

As an illustration of the views of distinguished Europeans on this subject, it can be mentioned that one of the most prominent of Danish thinkers, Bishop Mourad, who, during the war with Prussia, led the affairs of the nation as prime minister, has publicly declared himself in favor of a law that would compel the substitution of cremation for burial. Lord Beaconsfield, in considering earth-burial, wrote: "What is called God's acre is really not adapted to the country which we inhabit, the times in which we live, and the spirit of the age." Gambetta is a member of the French Cremation Society, and General Garibaldi in his will explicitly directed that his body should be burned, and that

the urn containing his ashes should be placed under the orange tree shading the tombs of his two little girls.

In our own country, although public interest in the subject of incineration has never become as extended as in Europe, the ranks of the cremationists steadily increase, and in very many cities societies have been organized.

That, in time, cremation will be universally adopted, there seems no reason to doubt. We have faith in a good custom ultimately supplanting a bad one, and the superiority of incineration over burial is manifest. When the merits of the question are thoroughly appreciated, we shall not feel justified in storing up disease-germs, and in poisoning earth, air, and water by our present custom of burying the dead. A refined sentiment will teach us the questionable nature of that respect which prompts the erection of a costly marble tribute to the memory of a friend, while his body is left to decompose in a water-soaked grave beneath it.

Science and proven facts attest the wisdom of cremation, and in the words of the Royal Institute of Science and Letters of Lombardy, we believe that its adoption will mark a stage of progress in the march of civilization.

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